rado, on the 31st, to 46° at West Las Animas, Colorado, on the 27th and 28th.

Southern slope.—From 35° at Fort Concho, Texas, on the 17th and 26th, to 40° at Fort Stockton, Texas, on the 28th.

Southern plateau.—From 29° at Fort Grant, Arizona, on the 30th, to 40° at El Paso, Texas, and Fort Apache, Arizona, on the 4th and 17th, respectively.

Middle plateau.—23° at Salt Lake City, Utah, on the 17th.

Northern plateau.—From 19° at Lewiston, Idaho, on the 26th, to 30° at Dayton, Washington Territory, on the 30th.

North Pacific coast.—From 14° at Fort Canby, Washington Territory, on the 29th, to 18° at Portland, Oregon, on the 13th.

Middle Pacific coast.—From 15° at San Francisco, California, on the 14th, to 31° at Sacramento, California, on the 2d.

South Pacific coast.—From 24° at San Diego, California, on the 14th, to 32° at Los Angeles, California, on the 15th.

LOW TEMPERATURES.

Boston, Massachusetts.—Extremely cold weather prevailed throughout New England during the 22d and 23d. In this city the temperature fell to —12° on the morning of the 23d, which is the lowest temperature recorded here during December since the establishment of the signal office. The following low temperatures were reported from various points in New England on the 23d: Concord, New Hampshire, —20°; Barre, Vermont, —26°; in the towns around Bellows Falls, Vermont, the temperatures ranged from —16° to —18°. At Plymouth, Massachusetts, the harbor froze over and the temperature fell to from —15° to —18°.

Utica, New York.—During the night of the 22–23d the temperature fell to —22°; at Booneville, Oneida county, to —36°.

Providence, Rhode Island.—The night of the 22–23d was one of the coldest experienced here for several years, the temperature falling to —10°.

Saint John, New Brunswick.—The temperature fell to —18° on the 23d, which is the lowest that has been recorded during the present season.

Augusta, Maine, 23d.—The temperature fell to —28° in the morning. At Rockland it was —10° at sunrise and —8° at noon. At Bangor, the thermometer read from —19° to —22° during the early morning, and at 6 p. m. it read —12°. At Lewiston it was from —14° to —18°.

Professor Charles G. Bœrner, of Vevay, Switzerland county, Indiana, furnishes the following record of low temperatures at that place since 1865, including the low temperature of January 5, 1884:

Year.	Month.	Temp.	Year.	Month.	Temp.
		°			°
1865	January	— 2	1875	January	— 7
1866	February	— 7	1876	December	— 7
1867	February	—10	1877	January	—16
1868	December	— 2	1878	January	— 5
1869	March	+ 6	1879	January	—20.5
1870	December	— 4	1880	December	—11
1871	December	— 7	1881	January	—12
1872	December	— 8	1882	December	— 3
1873	January	— 3.5	1883	January	+ 1
1874	January	+ 3	1884	January 5th	—23

Professor Bœrner, also makes the following note:

On the memorable cold New Year's day, January 1, 1864, in Cincinnati, my standard thermometer registered 16° below zero. The mean temperature of that day was 12°.5 below zero. A corresponding low temperature prevailed on the 3d and 4th of February, 1856, when the minimum temperature was 16° below zero.

FROSTS.

In the various districts they were reported on the following dates:

New England.—1st to 31st.

Middle Atlantic states.—1st to 31st.

South Atlantic states.—1st to 6th, 8th to 18th, 22d, 23d, 24th, 26th, 28th, 29th.

Florida peninsula.—1st, 2d, 13th, 16th, 17th, 18th, 28th, 29th.

Eastern Gulf.—1st, 3d, 4th, 12th, 13th, 15th to 18th, 26th, 28th, 29th.

Western Gulf.—1st, 3d, 8th to 12th, 14th to 20th, 24th, 25th, 27th, 28th, 31st.

Tennessee.—1st to 4th, 9th to 21st, 25th to 29th.

Ohio valley.—1st to 15th, 25th, 26th, 28th, 28th.

Lower lakes.—1st to 7th, 9th to 31st.

Upper lakes.—1st to 31st.

Extreme northwest.—1st to 31st.

Upper Mississippi valley.—1st to 5th, 7th to 31st.

Missouri valley.—1st to 31st.

Northern slope.—1st to 31st.

Middle slope.—1st to 5th, 7th to 31st.

Southern plateau.—3d to 19th, 24th to 31st.

Middle plateau.—1st, 2d, 4th, 6th to 18th, 20th, 21st, 25th, 27th, 31st.

Northern plateau.—1st to 18th, 31st.

North Pacific coast.—1st, 2d, 3d, 6th to 18th, 21st, 22d, 27th, 29th, 30th, 31st.

Middle Pacific coast.—1st, 2d, 7th to 23d, 28th to 31st.

South Pacific coast.—7th, 8th, 24th to 27th, 29th, 30th, 31st.

Frosts were also reported at Fort Concho, Texas, on the 7th, 8th, 9th, 15th, 17th, 19th, 31st; Brownsville, Texas, 7th, 17th.

The Signal Service observer at Jacksonville, Florida, reports that from authentic information received from Osceola, Orange county, the thermometer read 20° at that place on the 16th, and that the orange crop was damaged and the young orange trees were killed. It was also reported that in the orange groves at Enterprise, Volusia county, lumps of ice were found in the oranges. The lowest temperature at Jacksonville during the month was 30°.5, on the 16th.

ICE.

Under the heading "ice in rivers and harbors" in this REVIEW the subject of ice-formation in the northern sections of the country is considered. In the Southern states the following instances of ice-formation have been reported:

Alabama.—Auburn, 15th, 16th, 28th; Mobile, 15th; Montgomery, 15th.

Arizona.—Fort Grant, 8th, 24th, 25th, 30th, 31st; Wickenburg, 8th, 9th, 18th.

Florida.—Cedar Keys, 16th; Limona, 16th, 17th.

North Carolina.—Charlotte, 16th; Fort Macon, 16th.

South Carolina.—Charleston, 16th.

Tennessee.—Memphis, 16th, 17th, 19th, 20th, 21st, 27th, 28th.

Texas.—Barnesville, 31st; El Paso, 9th.

PRECIPITATION.

[*Expressed in inches and hundredths.*]

The distribution of rainfall over the United States and Canada for the month of December, 1883, as determined from reports from more than six hundred stations, is exhibited on chart iv.

The reports from eight New England stations show an average of precipitation of 3.40 for that district, which amount coincides exactly with the normal, as deduced from records of observations made at the same stations, and covering periods of from three to twelve years. For the western Gulf states, lower lake region, Missouri valley, and northern slope, the average precipitation is nearly normal, the departures in the three last-named districts being deficiences ranging from 0.03 to 0.13, and in the western Gulf states, an excess of 0.08 Along the Atlantic coast south of New England, in the eastern Gulf states, northern and middle plateau districts, and on the Pacific coast, the average precipitation is below the normal. The deficiencies are marked in the south Atlantic states, Florida peninsula, northern plateau, and in the north and middle Pacific coast regions. In the south Atlantic states the deficiency amounts to 1.91, in the Florida peninsula, 1.72, and in the northern plateau, north and middle Pacific coast regions, varies from 2.53 to 2.71. In the upper lake region, extreme northwest, Rio Grande valley, middle and southern slopes, and southern plateau, the average precipitation exceeds the normal, the departures varying from 0.25 to 0.91 in the three first-named districts, while in the southern plateau a

marked excess of 2.31 occurs. On the summit of Mount Washington, New Hampshire, the monthly precipitation, 2.66, is less than one-half of the normal amount for December; and on the summit of Pike's Peak, Colorado, it is 0.72, or 0.53 below the December average of the eleven preceding years.

The general distribution of rainfall for the month of December, and the districts of maximum departures from the normal in each year from 1872 to 1882, inclusive, are as follows:

Districts.	Maximum departures.	Year.	Distribution.
		1872	Excessive in Texas, Louisiana, western Mississippi, southern Virginia, North Carolina, eastern Tennessee, South Carolina, Georgia, and Florida; deficient in all other districts east of the Rocky mountains, except slight excesses at New London, Connecticut, Rochester, New York, Leavenworth, Kansas, and Breckenridge, Minnesota.
		1873	Normal in the south Atlantic states and upper lake region; deficient in New England, the middle Atlantic and Gulf states; excessive in the lower lake region, Tennessee, and in the Saint Lawrence, Ohio, and Missouri valleys.
Western Gulf states	+ 2.00	1874	Normal in the middle Atlantic states and in Minnesota; excessive in the western Gulf states; deficient in all other districts east of the Rocky mountains.
Lower lakes	— 1.85		
Saint Lawrence valley	— 1.30		
Upper Mississippi valley	— 1.00		
Upper lakes	— 1.00		
Portland, Oregon	+ 5.64	1875	Normal in Minnesota, the lower lake region, and middle Atlantic states; deficient in New England, the south Atlantic states, and on the middle Pacific coast; excessive in the Gulf states, upper lake region, Tennessee, in the upper Mississippi, Missouri, Ohio, and Saint Lawrence valleys, and in the north Pacific coast region.
Western Gulf states	+ 2.65		
Eastern Gulf states	+ 1.15		
San Francisco, California	— 2.75		
New England	— 1.65		
South Atlantic states	— 0.70		
Eastern Gulf states	+ 3.00	1876	Excessive in the south Atlantic and eastern Gulf states; normal in the upper Missouri and Saint Lawrence valleys; deficient in all other districts.
South Atlantic states	+ 1.65		
Pacific coast	— 4.00		
Upper Mississippi valley	— 1.65		
Ohio valley and Tennessee	— 1.60		
Eastern Gulf states	+ 2.05	1877	Excessive in the upper lake region, Minnesota, upper Mississippi and Missouri valleys, and in the south Atlantic and eastern Gulf states; deficient in all other districts.
Missouri valley	+ 1.14		
New England	— 2.02		
Portland, Oregon	— 1.30		
Lower lakes	— 1.26		
Saint Lawrence valley	+ 3.20	1878	Deficient in California, at Portland, Oregon, and in the upper Missouri valley; excessive in all other districts, except normal in Minnesota.
Lower lake region	+ 2.98		
Eastern Gulf states	+ 2.95		
Portland, Oregon	— 3.65		
California coast	— 2.39		
Tennessee	+ 4.84	1879	Deficient in the south Atlantic and western Gulf states, at Portland, Oregon, in Florida and the upper Missouri valley, the departures being very slight in the two last-named districts; excessive in all other districts east of the Rocky mountains, and also in California.
Ohio valley	+ 2.61		
Saint Lawrence valley	+ 2.44		
California coast	+ 1.92		
Western Gulf states	— 2.14		
South Atlantic states	— 1.62		
Middle Pacific coast	+ 7.25	1880	Normal in New England; excessive in the middle Atlantic states, Florida, eastern Gulf states, Minnesota, upper Missouri valley, and on the Pacific coast; deficient in the lake region, upper Mississippi, lower Missouri, and Ohio valleys, Tennessee, and in the south Atlantic and western Gulf states.
North Pacific coast	+ 5.02		
South Pacific coast	+ 2.63		
Middle Atlantic states	+ 1.16		
Western Gulf states	— 2.09		
Tennessee	— 1.05		
Eastern Gulf states	+ 3.12	1881	Excessive in the lake region, Ohio valley, Tennessee, New England, middle Atlantic and eastern Gulf states, the departures being very slight in the upper lake region and Tennessee; deficient in the south Atlantic states, Florida, and from the Mississippi river westward to the Pacific coast.
Lower lakes	+ 2.11		
Ohio valley	+ 1.51		
South Pacific coast	— 1.83		
Middle Pacific coast	— 1.26		
South Atlantic states	— 0.99		
North Pacific coast	+ 6.87	1882	Normal in the extreme northwest and northern slope; slightly excessive in Florida, the south Atlantic states, lake region, upper Mississippi valley, and northern plateau; large excess on the north Pacific coast; deficient in California, the middle and southern plateau districts, southern slope, Gulf states, Tennessee, middle Atlantic states, New England, and in the Ohio and Missouri valleys.
Florida peninsula	+ 0.45		
Middle Pacific coast	— 4.14		
Tennessee	— 2.90		
South Pacific coast	— 1.44		
Eastern Gulf states	— 1.20		

In the first column of the following table is given the average precipitation for December in each of the various districts for several years, as determined from observations made at the Signal Service stations; in the second column are given the averages for December, 1883, and the third column shows the excess or deficiency of December, 1883, as compared with the average:

Average precipitation for December, 1883.

Districts.	Average for December, Signal-Service observations.		Comparison of Dec., 1883, with the average for several years.
	For several years.	For 1883.	
	Inches.	*Inches*	*Inches.*
New England	3.40	3.40	normal.
Middle Atlantic states	3.60	2.99	0.61 deficiency.
South Atlantic states	4.40	2.49	1.91 deficiency.
Florida peninsula	2.42	0.70	1.72 deficiency.
Eastern Gulf states	5.27	4.88	0.39 deficiency.
Western Gulf states	3.78	3.86	0.08 excess.
Rio Grande valley	1.14	1.83	0.69 excess.
Tennessee	4.54	4.87	0.33 excess.
Ohio valley	3.76	4.22	0.46 excess.
Lower lakes	2.82	2.75	0.07 deficiency.
Upper lakes	2.01	2.31	0.30 excess.
Extreme northwest	0.87	1.24	0.37 excess.
Upper Mississippi valley	2.10	1.66	0.44 deficiency.
Missouri valley	1.00	0.87	0.13 deficiency.
Northern slope	0.89	0.86	0.03 deficiency.
Middle slope	0.50	1.41	0.91 excess.
Southern slope	0.78	1.03	0.25 excess.
Southern plateau	0.87	3.15	2.31 excess.
Northern plateau	4.79	2.08	2.71 deficiency.
North Pacific coast	8.39	5.74	2.65 deficiency.
Middle Pacific coast	3.10	0.63	2.53 deficiency.
South Pacific coast	2.54	2.19	0.35 deficiency.
Mount Washington, N. H.	5.50	2.66	2.84 deficiency.
Pike's Peak, Col.	1.25	0.72	0.53 deficiency.
Salt Lake City, Utah	1.44	1.20	0.24 deficiency.

DEVIATIONS FROM AVERAGE PRECIPITATION.

The departures exhibited by the reports from the regular Signal Service stations are shown in the table of average precipitation for December, 1883. Voluntary observers report the following notes in connection with this subject:

Florida.—Mayport, Duval county: monthly rainfall, 0.64, is 2.23 below the December average of the last ten years.

Illinois.—Anna, Union county: monthly precipitation, 5.14, is 1.97 above the December average of the last eight years.

Riley, McHenry county: monthly precipitation, 1.67, is 0.27 below the December average of the last twenty-three years. The total precipitation for the year ending December 31st, is 35.91, or 1.95 above the annual average of twenty-two years.

Mattoon, Coles county: monthly precipitation, 2.60, is 0.34 below the December average of the last four years.

Indiana.—Wabash, Wabash county: monthly precipitation, 2.37, is 0.07 below the December average of eight years. The total rainfall for 1883 is 51.54, or 12.49 above the annual average for a period of eight years.

Logansport, Cass county: monthly precipitation, 2.09, is 0.40 below the December average of the last twenty-four years. The total snow-fall for December, 1883, is 17.75, or about 8.50 above the December average of the last twenty-four years.

Kansas.—Independence, Montgomery county: monthly precipitation, 1.66, is 0.78 below the December average of eleven years.

Wellington, Sumner county: monthly precipitation, 1.40, is 0.73 above the December average of the four preceding years.

Lawrence, Douglas county: monthly precipitation, 0.77, is 0.88 below the December average of fifteen years. The total depth of snow was 2.00, or 4.05 below the December average.

Maine.—Gardiner, Kennebec county: monthly precipitation, 3.67, is about the December normal of the last forty-eight years. The total precipitation for 1883 is 38.88, or 5.35 below the annual average.

Maryland.—Fallston, Harford county: monthly precipitation, 5.23, is 1.97 above the December average of thirteen years.

Massachusetts.—Somerset, Bristol county: the total precipi-

Table of Excessive and Greatest and Least Monthly Precipitation.

Station.	Specially heavy. Date.	Amt.	Duration	Largest monthly. Amount.	Smallest monthly. Station.	Amt.
Alabama.					*Arizona.*	
Green Springs	7, 8	2.40			Pantano	0.19
Arizona.					Benson	0.50
Prescott	20, 21	2.86			*California.*	
Arkansas.					Willows	0.05
Mount Ida	5, 6	3.50			Goshen	0.10
Fayetteville	5, 6	3.00			Princeton	0.14
Fort Smith	5, 6	2.30			Williams	0.15
California.					Antioch	0.20
Fort Gaston	24, 25	6.60		9.10	Sumner	0.20
Florida.					Dagget	0.29
Pensacola	7, 8	2.91			Orland	0.29
Georgia.					Woodland	0.29
Camp Mitchell	7, 8	2.38			Kingsburg	0.30
Illinois.					Borden	0.31
Anna	22, 23	2.33			Fresno	0.34
Indiana.					Dunnigan	0.35
Huntingburg	23	3.44		6.24	San José	0.37
Hanover				6.12	Marysville	0.40
Salem	23	3.12			Davis	0.43
Marengo	23	3.10			Brighton	0.44
Princeton	23	3.10			Livermore	0.44
Vevay	22, 23	2.90			Modesto	0.44
Corydon	23	2.60			Tehama	0.44
Blue Lick	24	2.34			Knight's Landing	0.45
Miami	23	2.01			Solidad	0.45
Martinsville	29	2.00			Tulare	0.47
Iowa.					Chico	0.50
Oskaloosa	16	2.50			*Dakota.*	
Kentucky.					Fort Sisseton	0.35
Frankfort	22, 23	2.10			Fort Hale	0.40
Louisville	23	2.07			Fort Yates	0.43
Maryland.					*Florida.*	
Fallston	23	2.52			Archer	0.21
Mississippi.					Saint Augustine	0.26
Vicksburg	6, 7	2.03		9.42	Mayport	0.44
Do	30, 31	5.86			*Kansas.*	
North Carolina.					Salina	0.09
Brevard	7, 8	2.10			Manhattan	0.45
Nova Scotia.					Holton	0.50
Halifax				6.27	*Missouri.*	
Ohio.					Jefferson Barracks	0.39
College Hill	23, 24, 25	4.50		7.25	*Montana.*	
Cincinnati	23	2.57			Fort Keogh	0.00
Oregon.					Fort Assiniboine	0.21
Portland	24, 25	2.18		6.34	*Nebraska.*	
Roseburg	24, 25	2.82			Weeping Water	0.00
Albany	24	2.60			Table Rock	0.24
Eola	24	2.03			Lincoln	0.25
South Carolina.					Inavale	0.25
Charleston	27	2.42			Johnson	0.26
Tennessee.					Stella	0.28
Memphis	23, 24	2.63			Syracuse	0.30
Texas.					Crete	0.39
Clarksville	6	2.08			Nebraska City	0.40
Galveston	6	2.04			Pawnee City	0.40
Washington Territory.					Utica	0.40
Neah Bay				11.83	Ashland	0.50
Bainbridge Island	26	2.10			Beaver Creek	0.50
					Central City	0.50
					Nevada.	
					Reno	0.00
					Hot Springs	0.03
					Carson City	0.06
					Brown's	0.07
					Wadsworth	0.25
					Golconda	0.31
					Tecoma	0.36
					Humboldt	0.37
					Bishop's Creek	0.38
					Battle Mountain	0.40
					Winnemucca	0.45
					New Mexico.	
					Lordsburg	0.20
					Utah.	
					Blue Creek	0.00
					Kelton	0.16
					Terrace	0.30
					Promontory	0.41

tation for the year 1883 is 37.68, or 8.63 below the annual average of ten years.

Worcester, Worcester county: monthly precipitation, 2.48, is 1.37 below the December average of a period of forty-five years. The total precipitation for 1883 is 32.52, or 13.97 below the annual average for the same period.

Westborough, Worcester county: total precipitation for the year 1883 is 33.61, or 10.00 below the annual average of five years.

New Hampshire.—Antrim, Hillsborough county: monthly precipitation, is 3.65, or 0.07 above the December average of ten years.

Grafton, Grafton county: monthly precipitation, 3.05, is 0.72 below the December average of five years.

New Jersey.—South Orange, Essex county: monthly precipitation, 4.06, is 0.18 above the December average of fourteen years. The total snow-fall of the month, twenty-six inches, is the largest December snow-fall of the last fourteen years, except for December, 1872, when thirty-eight inches fell.

New York.—North Volney, Oswego county: monthly precipitation, 2.85, is 0.52 below the December average of twelve years. The total precipitation for 1883 is 37.65, or 0.93 above the annual average of eleven years.

Palermo, Oswego county: monthly precipitation, 2.78, is 1.37 below the December average of the last thirty years. The total snow-fall, 5.00, is 13.00 below the December average of the same period; the largest December snow-fall, 68.00, fell in 1868; the smallest, 4.00, fell in 1881. The total precipitation for 1883 is 32.91, or 5.79 below the annual average of a period of thirty years; the largest annual precipitation of that period is 52.50 for 1866; the smallest, 26.92, for 1882.

Ohio.—The following table shows the monthly and annual precipitation at Wauseon, Fulton county, as determined from observations made by Mr. Thomas Mikesell. The record covers periods from March, 1871, to December, 1872, and from May 1873, to December, 1883:

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual precipitation.
1871			2.05	3.53	2.80	3.09	4.16	2.77	0.55	0.95	3.45	1.66	
1872	1.32	0.82	0.97	1.31	3.72	1.43	7.26	4.26	3.78	1.38	1.87	2.95	31.07
1874					1.70	5.47	2.59	1.44	0.66	0.93	2.77	0.41	
1875	2.14	2.68	3.40	1.53	6.06	6.06	1.60	3.82	2.23	3.42	2.38	2.96	38.28
1876	2.57	6.81	6.52	1.53	6.13	6.36	6.37	2.23	4.12	2.82	2.51	1.64	49.58
1877	2.02	0.12	5.61	3.07	1.14	8.21	3.79	2.74	1.56	4.88	4.02	1.40	38.56
1878	2.14	3.26	3.78	3.21	4.70	2.55	4.28	4.03	1.89	2.42	2.72	2.23	37.24
1879	1.29	1.50	2.88	2.51	3.06	2.82	4.20	2.72	5.29	0.95	5.15	4.32	36.69
1880	3.53	1.48	2.78	4.81	6.25	3.31	4.99	4.72	2.69	2.67	2.54	1.23	41.00
1881	1.77	4.28	3.73	1.55	1.33	8.43	5.03	1.25	2.36	8.92	5.83	3.58	48.06
1882	2.14	2.91	3.43	2.33	4.96	3.18	2.57	3.48	1.35	2.59	2.81	1.81	33.56
1883	1.72	5.11	1.70	1.63	5.97	4.73	6.44	1.67	2.96	4.37	2.88	2.41	41.59
Average	2.11	2.82	3.35	2.46	3.98	4.64	4.44	2.93	2.45	3.02	3.24	2.22	39.56

From the above record it will be seen that the precipitation for December, 1883, is slightly in excess of the average.

In the following table are shown the total snow-falls for the months from October to May, inclusive, since 1871, with the exception of the cold season of 1873–4, at Wauseon:

Month.	1871–2	1874–5	1875–6	1876–7	1877–8	1878–9	'79–80	1880–1	1881–2	1882–3	Average
October	0.00	0.00	0.75	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.17
November	5.40	15.75	11.70	9.70	1.60	3.00	5.05	12.60	3.15	7.36	7.53
December	8.05	0.80	4.55	16.65	0.80	18.80	7.65	6.40	1.60	17.45	8.27
January	11.70	18.15	1.10	11.30	16.95	7.90	0.55	15.50	4.60	10.55	9.83
February	5.30	14.90	7.45	0.80	15.80	10.35	4.50	20.15	1.90	6.00	8.71
March	4.25	25.30	30.30	41.70	0.15	10.25	5.20	13.60	4.10	15.95	15.08
April	3.00	2.80	0.00	0.90	0.00	4.75	0.00	5.85	0.05	0.00	1.73
May	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.66
Total	37.70	77.80	55.85	81.05	35.30	55.05	22.95	75.10	15.40	63.80	*52.02

* Annual average.

Pennsylvania.—Dyberry, Wayne county: monthly precipitation, 2.33, is 0.16 below the December average of the last fifteen years.

Texas.—The following table, compiled from records of observations made by Dr. Frederick Pettersen, of Comfort, Kendall county, shows the monthly and annual rainfall at that place since May, 1877:

Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October	November.	December.	Total.
1877					1.86	1.98	0.35	2.53	3.39	5.49	2.26	0.16	18.04
1878	1.02	1.94	0.30	1.83	6.20	3.32	1.90	2.03	0.15	0.50	0.68	0.22	20.09
1879	0.10	0.87	0.00	4.05	1.12	1.80	0.25	3.06	1.49	0.84	0.20	0.10	13.88
1880	2.90	2.16	0.72	3.56	5.66	1.02	2.90	6.44	7.94	1.49	1.97	1.55	38.22
1881	0.14	0.40	1.40	2.10	4.66	0.00	1.76	0.30	3.22	3.86	1.40	0.30	19.54
1882	2.60	2.80	1.72	1.00	3.76	0.00	4.42	4.50	0.96	2.71	0.75	1.45	26.67
1883	0.00	0.65	3.02	0.80	0.00	0.80	4.10	0.00	0 98	1.64	0.66	2.18	14.25
Aver'ge	1.13	1.47	1.19	2.22	3.32	1.27	2.24	2.69	2.59	2.35	1.13	0.85	*22.11

*Annual average of six years.

From the above table it will be seen that the precipitation for December, 1883, is 1.33 inches above the average.

New Ulm, Austin county: monthly rainfall, 2.61, is 2.35 below the December average of twelve years. The largest December rainfall of that period, 16.43, occurred in 1875; the smallest, 0.44, occurred in 1880.

Virginia.—Variety Mills, Nelson county: monthly precipitation, 2.22, is 1.88 below the December average of the last five years.

Wytheville, Wythe county: monthly precipitation, 2.90, is the December normal for a period of nineteen years.

West Virginia.—Helvetia, Randolph county: monthly precipitation, 5.15, is 0.51 above the December average of seven years. The total precipitation for 1883 is 61.53, or an excess of 4.17 over the annual average of seven years.

Washington Territory.—New Tacoma, Pierce county: the total precipitation for 1883, up to December 27th, is 27.61, or 23.59 below the annual average of the five preceding years.

SNOW.

The dates on which snow is reported to have fallen in the northern districts are as follows:

New England.—1st, 2d, 3d, 5th, 8th to 28th, 30th, 31st.

Middle Atlantic states.—2d, 5th, 8th, 9th, 11th, 12th, 14th, 16th to 26th, 28th, 30th.

Ohio valley.—13th to 25th, 27th, 28th, 31st.

Lower lakes.—1st, 2d, 3d, 5th, 9th to 12th, 14th to 24th, 26th to 31st.

Upper lakes.—1st, 2d, 5th, 6th to 31st.

Extreme northwest.—6th to 9th, 13th to 17th, 19th to 23d, 25th to 31st.

Upper Mississippi valley.—7th, 8th, 13th to 23d, 25th to 31st.

Missouri valley.—1st, 4th, 6th, 7th, 13th to 23d, 25th, 26th, 28th to 31st.

Northern slope.—5th, 6th, 13th, 15th to 23d, 25th to 31st.

Middle slope.—1st, 4th to 7th, 13th to 20th, 22d, 23d, 26th, 28th to 31st.

Middle plateau.—2d to 6th, 19th to 26th, 28th to 31st.

Northern plateau.—4th, 5th, 7th, 18th to 26th, 28th, 29th, 30th.

North Pacific coast.—19th, 22d to 25th, 27th to 30th.

In the southern districts snow is reported to have fallen as follows:

Arizona.—Fort Apache, 5th; San Carlos, 5th; Fort Bowie, 10th; Fort Grant, 11th.

Georgia.—Atlanta, 17th.

North Carolina.—Fort Macon, New River Inlet, Sloop Point, and Wilmington, 17th; Kitty Hawk and Wash Woods, 17th and 23d.

Tennessee.—Chattanooga, 16th, 17th; Memphis, 19th; Nashville, 14th, 15th.

Texas.—Fort Stockton, 10th.

The following reports of snow storms of unusual severity have been received:

Denver, Colorado, 6th.—One of the most disastrous snow storms that has ever occurred here, prevailed during the 5th and 6th. Snow began falling at noon of the 5th, and continued all night. At 4 a. m. of the 6th the wind blew with great force. More than three hundred telegraph poles, eighteen inches in diameter, were blown down. The telephone company sustained damage estimated at $15,000. Several streets were blockaded and all outside communication was cut off. Trains on the Union Pacific railroad were delayed thirty-six hours, being stopped by snow-drifts at Hugo, one hundred miles southeast of Denver.

Mount Carmel, Northumberland county, Pennsylvania, 19th.—Snow fell to a depth of thirteen inches on this date, causing suspension of work in several collieries, and impeding railroad travel.

Albany, New York, 19th.—The heavy snow-fall of that date caused interruption to railroad travel.

Denver, Colorado, 24th.—Reports from Ouray, in southwestern Colorado, state that on the 21st a huge mass of snow started from the top of Mount Snefles, and, increasing in size as it descended, struck a building (in which were eleven men) at the foot of the mountain. The building was completely swept away, and the inmates were buried beneath from fifteen to twenty feet of snow. Five of them were seriously injured and six were killed. The snow-slide was the result of warm weather; snow-slides are of common occurrence in the mountainous regions late in spring, but are very unusual at this season. Reports from the mountain towns state that there has been an unusual snow-fall, it being from four to six feet deep on the level.

Petersburg, Virginia.—Snow fell to a depth of four inches at this place on the 23d.

Highland, Madison county, Illinois.—A severe snow and sleet storm prevailed here during the night of the 22–23d. All trains arriving were delayed from one to five hours.

Pittsburg, Pennsylvania.—A heavy snow storm occured here on the 23d, causing delay of trains and prostration of telegraph lines. Snow began at daylight and continued until dusk, when it changed to a steady rain. The streets were rendered almost impassable and many cellars were flooded.

Chicago, Illinois.—A snow storm of wide extent prevailed over this region on the 22d and 23d, followed by sleet, and in some places rain. Trains due here were delayed from one to ten hours, and telegraphic communication was seriously interrupted, especially between Chicago and points south and east.

Ashland, Jackson county, Oregon.—The snow in the mountains between this place and Linkville, Lake county, was from four to five feet deep on the 24th.

Lancaster, Lancaster county, Pennsylvania.—The Farmer's Northern Market building, a large brick structure, (dimensions, 244 by 87 feet), was totally demolished at about 3 a. m. of the 24th. The disaster was caused by the supports of the roof giving way under a heavy weight of snow. The damage is estimated at $53,000. No lives were lost, owing to the early hour at which the accident occurred.

Oswego, New York, 24th.—The New York, Ontario, and Western train, due at 11 a. m. of this date, was delayed two hours by snow.

New York City.—The heavy snow-fall of the 25th caused much damage in Queens and Suffolk counties, but it did not impede railroad travel. At Flushing, Long Island, the heavy weight of snow crushed in the roofs of barns and other buildings.

LARGEST MONTHLY SNOW-FALLS.

[*Expressed in inches.*]

The following are the largest monthly snow-falls reported from the various states and territories during the month:

California.—Summit, 32; Cisco, 27; Emigrant Gap, 24.25; Alta, 5.

Colorado.—Denver, 22.9; Fort Lewis, about 14; Pikes Peak, 7.2; Golden, 5.38; Pueblo, 5.

Connecticut.—Southington, 25.25; New Haven, 25; Bethel, 22; New London, about 18.

Dakota.—Fort Totten, 28.4; Pembina, 17.2; Fort Bennett, about 10; Webster, 8.2; Bismarck, 7.5; Alexandria, 6.6.

Delaware.—Saint George's, 9.

District of Columbia.—West Washington, 5.4.

Illinois.—Polo, 15.5; Rockford, 15.13; Riley, 14.75; Springfield, 13.5; Chicago, 12.3; Mattoon, 7.9; Larchland, 6.5; Peoria, 6; Bunker Hill, 5.

Indiana.—Indianapolis, about 24; Griffin Station, 23.5; Richmond, 20.55; Lafayette, 18; Logansport, 17.75; Sunman, 15; Wabash, 13.25; Noblesville, 13; Worthington, 12; Vevay, 11.6; Hanover, 9; Fort Wayne, 7.5; Salem, 7.5; Terre Haute, 7; Dunkirk, 6.1; Marengo, 5.

Iowa.—Independence, 20; Dubuque, 15.3; Humboldt, 11.91; Muscatine, 11; Fort Madison, 10.5; Monticello, 9.7. Keokuk, 8.8; Cedar Rapids, 8.5; Des Moines, about 8; Cresco, 7; Davenport, 6.9; Indianola, 6.75; Nora Springs, 5.

Kentucky.—Frankfort, 6.75; Louisville, about 6.

Maine.—Cornish, 24; Eastport, 24; Portland, about 18.5; Gardiner, 18.25; Orono, 12.

Maryland.—Cumberland, 16; Fallston, 12.5; Baltimore, about 10; Emmittsburg, 10; Sandy Springs, 7.7.

Massachusetts.—Boston, 31; Charlestown, 31; Westborough, 28.5; New Bedford, 26; Milton, 25; Taunton, 24.5; Mendon, 24; Somerset, 24; Princeton, 23.6; Fall River, 23; Worcester, 19.25; Rowe, 19; Amherst, 16.5; Provincetown, 11.

Michigan.—Northport, 29.25; Traverse City, 19.5; Alpena, about 18; Milwaukee, 17; Marquette, about 16.6; Hudson, 16.46; Fort Brady, about 16; Ionia, 14.75; Detroit, about 12; Grand Haven, about 12; Hillsdale, 11.65; Grand Rapids, 11; Lansing, 11; Escanaba, about 9; Coldwater, 8.5; Marshall, 7.78; Port Huron, 5.4.

Minnesota.—Duluth, 20; Moorhead, about 14; Minneapolis, 10.38; Northfield, 7.5; Saint Paul, about 7.

Montana.—Fort Custer, 15; Fort Ellis, 9.2; Helena, 9; Fort Shaw, 5.4.

Nebraska.—Genoa, 8.5.

Nevada.—Truckee, 16; Halleck, 8.5; Wells, 8; Otego, 7.25; Elko, 7.12; Carlin, 7; Boca, 6; Toano, 6; Beowawe, 5.5.

New Hampshire.—Mount Washington, 22.2; Antrim, 20; Grafton, 20; Bristol, about 18; Contoocookville, 18; Lake Village, 17.1; Wolfborough, 17; Woodstock, about 17; Weirs Bridge, 15.5; Belmont, 14.2; Ashland, 12.7.

New Jersey.—Somerville, 28.4; South Orange, 26; Paterson, 25.5; Caldwell, 21.2; Readington, 20; Moorestown, 11; Vineland, 8.75.

New Mexico.—Fort Wingate, about 7.

New York.—Oswego, about 25; White Plains, 24; Fort Hamilton, 23.8; New York City, about 23.5; Flushing, 23; Mountainville, 18.5; Friendship, 18; Humphrey, 18; Albany, 17; Auburn, 16; Port Jervis, 16; Ardenia, 15.5; Johnstown, 15.25; Rochester, 14.2; Cooperstown, 14; Penn Yan, 13.25; Menand Station (near Albany) 13; Factoryville, 12.5; Hector, 7; Ithaca, 6; Palermo, 5.

Ohio.—College Hill, 26.25; Cincinnati, 17.5; North Lewisburg, 15.5; Columbus, about 12; Westerville, 12; Sandusky, 10.3; Cleveland, 8.4; Canal Dover. 6.

Oregon.—Fort Klamath, more than 24.

Pennsylvania.—Grampian Hills, 20; Easton, 17.5; Dyberry, 17; Fallsington, 15.25; West Chester, 14.25; Millville, 13.3; Chambersburg, 13.25; Erie, about 13; Philadelphia, about 11.5; Catawissa, 10.8; Leetsdale, 10.5; Wilkesbarre, 10.4; Wellsborough, 7.8; Troy, 6.4.

Rhode Island.—Block Island, about 11.

Utah.—Ogden, 7.5; Logan, 5.

Vermont.—Woodstock, 17.9; Strafford, 17; Lunenburg, 16; Newport, 12.35; Charlotte, 10; Burlington, 8.

Virginia.—Accotink, 6; Fort Myer, 5.5.

Washington Territory.—Fort Spokane, 15.

West Virginia.—Helvetia, 19.75; Wellsburg, 10.

Wisconsin.—Lancaster, 22.12; Madison, 15.3; Beloit, 13.2; Neillsville, 11.5; Embarrass, about 11; Sussex, 10.9; Ripon, 5.7.

Wyoming.—Fort Bridger, 9; Cheyenne, 8.

DEPTH OF UNMELTED SNOW ON GROUND AT END OF MONTH.

Colorado.—Pike's Peak, 8; Golden, 7.38; Denver, 2; Pueblo, 2; West Las Animas, 1.5.

Connecticut.—Bethel, 6; New Haven, 6; Southington, 6; New London, 3.5.

Dakota.—Fort Yates, about 9; Deadwood, 8; Fort Buford, 8; Alexandria. 6; Rapid City, 5; Webster, 5; Bismarck, 4, Vermillion, 3; Yankton, 2.5; Fort Bennett, 2; Huron, 2.

Delaware.—Saint George's, 2.

District of Columbia.—Washington City, 1.5; West Washington, trace.

Illinois.—Polo, 13; Riley, 13; Springfield, 6; Chicago, 4; Larchland, 4.

Indiana.—Lafayette, 5; Logansport, 5; Indianapolis, 4; Fort Wayne, 3; Wabash, 3; Griffin Station, 1.

Iowa.—Independence, about 14; Monticello, 9; Des Moines, 3 to 8; Guttenburg, 7; Humboldt, 7; Muscatine, 7; Cresco, 6; Dubuque, 3; Nora Springs, 3; Keokuk, 2.5; Cedar Rapids, 2; Davenport, trace.

Kansas.—Salina, 2.5; Independence, 2; Manhattan, 2; Allison, 1.5; Fort Scott, 1; Leavenworth, 1; Dodge City, 0.5; Clay Centre, trace; Wellington, trace.

Maine.—Cornish, 13; Gardiner, 5.5; Eastport, 4; Orono, 3; Portland, 3.

Maryland.—Cumberland, 7; Emmittsburg, 7; Fallston, 3; Sandy Springs, 2; Baltimore, trace.

Massachusetts.—Heath, 18; Westborough, 18; Worcester, about 14; Mendon, 12; Rowe, 12; Charleston, 9; Boston, 8; Milton, 8; Somerset, 8; Fall River, 3.

Michigan.—Northport, 8.1: Hillsdale, 6; Hudson, 6; Ionia, 6; Marquette, 6; Traverse City, 6; Escanaba, 4.5; Mackinaw City, 4; Grand Haven, 3.5; Port Huron, 3.5; Alpena, 3; Detroit, 1.5.

Minnesota.—Saint Paul, 15.75; Duluth, 14; Moorhead, 8; Minneapolis, 6; Northfield, 5; Saint Vincent, 3.

Montana.—Fort Custer, 4; Fort Shaw, 3; Fort Assinniboine, 1; Fort Benton, 1; Helena, 1.

Nebraska.—North Platte, 2.5; Fremont, 0.75; Clear Creek, 0.5; Crete, 0.5; Stockham, 0.5; Omaha, trace.

New Hampshire.—Mount Washington, 12; Grafton, 10.

New Jersey.—Caldwell, 9; South Orange, 8; Somerville, 7; Paterson, 6; Moorestown, 4.5; Sandy Hook, 3.

New York.—Flushing, 15; White Plains, 12; Ardenia, 8; Auburn, 8; Cooperstown, 8; Humphrey, 8; Penn Yan, 8; Mountainville, 7; Menand Station, (near Albany) 7; Albany, 6; Friendship, 6; Rochester, 5; Oswego, 4.5; Hector, 4; Johnstown, 4; Factoryville, 3; Ithaca, 2; Palermo, 2; Buffalo, trace.

Ohio.—Jacksonburg, 20; North Lewisburg, 6; Cincinnati, 3.5; Cleveland, 3; Westerville, 3; Columbus, 1.5; Toledo, 1.5; Canal Dover, trace.

Pennsylvania.—Grampian Hills, 12; Erie, 10; Dyberry, 9; Millville, 7; Fallsington, 6; Philadelphia, 6; Chambersburg, 5.5; Wellsborough, 3.4; Catawissa, 3; West Chester, 3; Wilkesbarre, 2.5; Troy, 1; Leetsdale, trace.

Utah.—Logan, 3; Nephi, 3; Salt Lake City, 1 to 3.

Vermont.—Strafford, 12; Woodstock, 9; Burlington, 6; Charlotte, 5; Newport, 4.

Virginia.—Accotink, trace.

Washington Territory.—Dayton, 3; Port Angeles, 3.

Wisconsin.—Lancaster, 10; Madison, 8; Sussex, 8; Neillsville, 7; Beloit, about 6; Embarrass, 5; Ripon, 5; Milwaukee, 4.5; La Crosse, 3.5.

Wyoming.—Cheyenne, 3.

SNOW FROM A CLOUDLESS SKY.

Duluth, Minnesota.—It is reported that at 9 p. m. of the 1st snow fell from a cloudless sky for several minutes, in the southern outskirts of this city. There were no clouds visible, except a few over Lake Superior.

SLEET.

Sleet is reported to have fallen in the northern districts as follows:

New England.—3d, 19th, 24th, 31st.

Middle Atlantic states.—1st, 2d, 18th, 19th, 21st, 23d to 27th, 30th, 31st.

Ohio valley.—22d, 23d.

Lower lakes.—3d, 4th, 8th to 12th, 14th, 18th, 23d, 24th, 31st.

Upper lakes.—23d.

Extreme northwest.—7th.

Upper Mississippi valley.—22d, 23d, 29th, 30th.

Missouri valley.—17th to 23d, 29th, 30th.

Middle slope.—19th to 23d, 29th.

Sleet is also reported to have fallen at the following stations:

Little Rock, Arkansas, 18th.

Ogreeta, North Carolina, 24th.
Wilmington, North Carolina, 17th.
Memphis, Tennessee, 19th.
Nashville, Tennessee, 18th to 21st.
Cleburne, Texas, 10th.
Fort Canby, Washington Territory, 29th.

Table of rainy and cloudy days, relative humidity, and dew-point for Dec., 1883.

Districts.	Rainy days.	Cloudy days.	Rel. humidity.*	Dew-point.
			Percentages.	° °
New England	From 13 to 21	From 9 to 13	From 73.3 to 80.5	From 16.8 to 29.5
Middle Atlantic states	" 11 " 21	" 5 " 16	" 63.0 " 78.4	" 22.4 " 37.2
South Atlantic states	" 3 " 15	" 1 " 8	" 60.6 " 81.6	" 35.3 " 52.6
Florida peninsula	" 4 " 8	" 1 " 2	" 76.7 " 79.2	" 54.2 " 64.3
East Gulf states	" 10 " 16	" 8 " 12	" 70.8 " 75.6	" 43.7 " 50.6
West Gulf states	" 7 " 14	" 8 " 12	" 67.2 " 81.3	" 32.6 " 53.2
Rio Grande valley	" 7 " 10	" 9 " 10	" 78.0 " 84.8	" 53.0 " 59.6
Ohio valley	" 16 " 17	" 9 " 16	" 68.1 " 78.1	" 24.5 " 32.6
Tennessee	" 16 " 18	" 8 " 16	" 68.8 " 73.6	" 35.6 " 37.4
Lower lakes	" 17 " 25	" 8 " 24	" 67.0 " 80.4	" 20.8 " 27.9
Upper lakes	" 11 " 23	" 7 " 26	" 70.2 " 82.7	" 9.2 " 21.5
Extreme northwest	" 6 " 16	" 4 " 8	" 65.9 " 86.1	" — 2.4 " 5.5
Upper Mississippi valley	" 10 " 14	" 6 " 12	" 60.7 " 73.6	" 10.7 " 32.5
Missouri valley	" 8 " 16	" 5 " 7	" 66.0 " 75.8	" 9.7 " 24.0
Northern slope	" 3 " 11	" 5 " 12	" 48.0 " 74.0	" 15.3 " 21.7
Middle slope	" 5 " 11	" 2 " 6	" 61.3 " 67.7	" 19.4 " 25.6
Southern slope	" 6 " 7	" 5 " 6	" 63.0 " 71.9	" 33.9 " 38.0
Southern plateau	" 2 " 10	" 3 " 7	" 55.9 " 70.5	" 28.3 " 35.3
Northern plateau	" 3 " 15	" 8 " 10	" 73.2 " 83.5	" 26.3 " 27.9
North Pacific coast	" 13 " 24	" 10 " 13	" 83.3 " 86.6	" 35.4 " 40.2
Middle Pacific coast	" 3 " 9	" 4 " 5	" 79.3 " 88.5	" 37.6 " 44.2
South Pacific coast	" 6 " 7	Two	" 63.8 " 64.7	" 42.0 " 43.6
Mt. Washington, N. H.	Twenty-one	Nine	81.6	6.7
Pike's Peak, Col.	Nine	Two	80.6	3.3

* Relative humidity corrected for altitude.

WINDS.

The most frequent directions of the wind during December, 1883, at the Signal Service stations are shown on chart iii. by arrows flying with the wind. On the Atlantic coast north of Virginia the prevailing winds were from the north and northwest, except at New York City, where they were southwest; on the south Atlantic coast, from northeast and southwest; along the immediate Gulf coast, from the north; in the lower lake region and Ohio valley, from south and southwest; in Tennessee, from south and southeast; in the upper lake region, upper Mississippi and Missouri valleys, from north to west; in Oregon and Washington Territory, from southeast to southwest; in southern California, from northeast.

TOTAL MOVEMENTS OF THE AIR.

[In miles.]

In the following table are given the stations reporting the largest and smallest total movements of the air in each of the various districts:

Districts.	Stations reporting largest.	Miles.	Stations reporting smallest.	Miles.
New England	Block Island, R. I.	13,367	New Haven, Conn.	5,800
Middle Atlantic states	Cape May, N. J.	12,015	Lynchburg, Va.	2,365
South Atlantic states	Kitty Hawk, N. C.	10,034	Augusta, Ga.	1 723
Florida peninsula	Key West	6,606	Sanford	3,686
East Gulf states	New Orleans, La.	5,556	Montgomery, Ala.	2,787
West Gulf states	Indianola, Tex.	10,326	Little Rock, Ark.	3,844
Ohio valley	Louisville, Ky.	6,433	Cincinnati, Ohio.	3,986
Tennessee	Nashville	4,935	Chattanooga	4,250
Lower lakes	Buffalo, N. Y.	9,965	Toledo, Ohio	6,697
Upper lakes	Milwaukee, Wis.	10,132	Chicago, Ill.	5,945
Extreme northwest	Saint Vincent, Minn.	7,746	Fort Buford, Dak.	5,304
Upper Mississippi valley	Springfield, Ill.	7,692	Saint Paul, Minn.	3,883
Missouri valley	Omaha, Nebr.	7,076	Fort Bennett, Dak.	4,304
Northern slope	Cheyenne, Wyo.	7,914*	North Platte, Nebr.	4,686
Middle slope	Fort Elliott, Texas	8,472	West Las Animas, Colo	5,835
Southern slope	Fort Concho, Tex.	6,094	Fort Stockton, Tex.	3,552
Southern plateau	Fort Grant, Ariz.	6,097	El Paso, Tex.	3,105
Northern plateau	Dayton, Wash. T.	3,708	Lewiston, Idaho	1,543
North Pacific coast	Fort Canby, Wash. T.	8,933	Roseburg, Oreg.	1,724
Middle Pacific coast	Cape Mendocino, Cal.	11,895	Sacramento, Cal.	2,845
South Pacific coast	Los Angeles, Cal.	4,391	San Diego, Cal.	4,034

* For thirty days.

On the summits of Mount Washington and Pike's Peak the total movements of the air were 29,035 and 17,409 miles, respectively, the record at the former station being incomplete on account of frost-work.

HIGH WINDS.

On the summit of Mount Washington velocities of fifty miles or more per hour occurred on the following dates: from 1st to 19th, 22d to 29th. The highest velocities recorded were: 80, nw., 2d; 100, nw., 3d; 90, nw., 15th; 88, w., 18th; 108, nw., 22d; 124, nw., 23d; 80, nw., 29th. The maximum velocity for the month occurred on the 28th; at 12.54 p. m. the registering instrument was blown away, and it was not possible to replace it during the hurricane; a velocity of 132 miles per hour was recorded by holding the anemometer before the wind; the observer estimates the maximum velocity at 150 miles.

On the summit of Pike's Peak velocities of fifty miles or more per hour occurred on the 15th, 16th, 17th, 19th, 21st, 24th to 28th. The highest velocities recorded were as follows: 76, nw., 17th; 76, w., 21st; 96, w., 25th (maximum for the month); 74, w., 28th.

At Cape Mendocino, California, the highest velocities were: 64, se., 2d; 50, se., 23d; 60, se., 24th; 54, se., 26th; 72, se., 27th (maximum for the month).

Other stations reporting wind-velocities of fifty miles or more per hour, are as follows:

Fort Custer, Montana, 72, nw., 17th, and 72, w., 25th.
Cape May, New Jersey, 61, w., 28th.
Barnegat City, New Jersey, 59, nw., 28th.
Moorhead, Minnesota, 56, nw., 7th.
Fort Canby, Washington Territory, 56, s., 26th.
Sandusky, Ohio, 56, nw., 18th.
Sandy Hook, New Jersey, 56, nw., 28th.
Block Island, Rhode Island, 55, nw., 28th.
Cheyenne, Wyoming, 52, nw., 17th.
Fort Shaw, Montana, 52, sw., 27th.
Chincoteague, Virginia, 50, nw., 28th.

LOCAL STORMS.

Key West, Florida, 15th.—During a gale ("norther") the s. s. "Alarm" was blown against the Government wharf and had a hole stove in her side.

Idaho Springs, Clear Creek county, Colorado, 17th.—A violent storm prevailed in the morning. Several small houses were blown down, resulting in damage estimated at $5,000.

Fort Collins, Larimer county, Colorado.—A very destructive storm passed over this part of the state on the 17th. About a dozen residences at this place were more or less injured. The damage resulting from the storm in Larimer county is estimated at $10,000.

Ashland, Jackson county, Oregon.—On the night of the 23–24th, in mountains between this place and Linkville, Lake county, one of the severest storms occurred that has been experienced for many years. About thirty miles of the government telegraph line were prostrated.

Dr. G. G. Whitcomb, of Ogreeta, Cherokee county, North Carolina, reports that at 8.30 p. m. of the 24th a violent storm occurred five miles north of that place, passing over the tops of the mountains at an elevation of 2,300 feet. The cloud was funnel-shaped and passed from west-northwest eastwardly. Hail, sleet, and snow followed after the storm had passed, or seemed to be thrown from it. As the country over which it passed is sparsely settled but little damage was done, other than that sustained by the forests. The movement of the clouds toward the path of the storm was observed at a distance of three miles.

New Haven, Connecticut.—During the night of the 24–25th the brig "Ellen Maria" was blown ashore on Fisher's island. She was valued at $10,000, and proved almost a total loss. The schooner, "Laura" went ashore at Millstone point on the morning of the 25th; she was hauled off by the wreckers, having sustained damage to the extent of $800.

Fort Klamath, Lake county, Oregon.—A violent southwesterly wind and rain storm passed over that place on the afternoon of the 25th, uprooting trees and blowing down several miles of telegraph line.

Savannah, Georgia.—A violent thunder-storm occurred here during the early morning of the 27th. It approached this city from the west, following the course of the Savannah river. At 4 a. m. the city was aroused by the most unusual and violent